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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/518,063	03/02/2000	Roozbeh Atarius	040070-990	4673

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EXAMINER

BURD, KEVIN MICHAEL

ART UNIT	PAPER NUMBER
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2631

DATE MAILED: 01/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

7/

Office Action Summary

Application No.

09/518,063

Applicant(s)

ATARIUS ET AL.

Examiner

Kevin M Burd

Art Unit

2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Information Disclosure Statement

1. The information disclosure statements (IDS) submitted on 6/9/2000 and 9/7/2001 are being considered by the examiner.

Drawings

2. The drawings are objected to because it is unclear which elements constitute figure 2A of the drawings and which elements constitute figure 2B of the drawings. Both of these figures appear on the same sheet. Correction or clarification is required.

Figure 2A should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Figure 2C contains a key which is illegible.

Corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 3 is objected to because of the following informalities: the word "he" appears on line 3. This term should be changed to "the". Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, 9-14 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Hutchison IV, et al (US 5,790,589).

Regarding claim 1, Hutchison discloses a method of detecting path rays in a multi-path channel (column 1, lines 35-48). Locations are searched to find the location of a signal. The location of the signal is detected (tracked). If a location is not found after a certain time period, a new search is conducted. This information is disclosed in the abstract. The recitation "having multiple time references" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Regarding claim 2, Hutchison discloses using an expected location of the pilot channel in the PN code sequence to locate the pilot channel. If the signal is not detected, a shift in the location occurs. Each of these spiral shifted locations is analyzed

to determine the actual location of the pilot channel. This information is found in the abstract.

Regarding claim 3, Hutchison discloses searching in a search window for a pilot channel and conducting a spiral searching method alternatively search advanced and retard windows positions for a maximum number of iterations (abstract).

Regarding claim 4, the locations are correlated and compared to predetermined thresholds to determine if the window contains a likely candidate (pilot channel) (column 7, lines 10-17).

Regarding claim 5, the locations are correlated and compared to predetermined thresholds to determine if the window contains a likely candidate (pilot channel) (column 7, lines 10-17). This is done for a plurality of iterations until the desired signal is found (column 9, lines 53-58).

Regarding claim 9, Hutchison discloses this communication takes place in CDMA wireless communication systems.

Regarding claim 10, Hutchison discloses a method of detecting path rays in a multi-path channel (column 1, lines 35-48). Locations are searched to find the location of a signal. The location of the signal is detected (tracked). If a location is not found after a certain time period, a new search is conducted. This information is disclosed in the abstract.

Regarding claim 11, Hutchison discloses using an expected location of the pilot channel in the PN code sequence to locate the pilot channel. If the signal is not detected a shift in the location occurs. Each of these spiral shifted locations is analyzed

to determine the actual location of the pilot channel. This information is found in the abstract.

Regarding claim 12, Hutchison discloses searching in a search window for a pilot channel and conducting a spiral searching method alternatively search advanced and retard windows positions for a maximum number of iterations (abstract).

Regarding claim 13, the locations are correlated and compared to predetermined thresholds to determine if the window contains a likely candidate (pilot channel) (column 7, lines 10-17).

Regarding claim 14, the locations are correlated and compared to predetermined thresholds to determine if the window contains a likely candidate (pilot channel) (column 7, lines 10-17). This is done for a plurality of iterations until the desired signal is found (column 9, lines 53-58).

Regarding claim 18, Hutchison discloses this communication takes place in CDMA wireless communication systems.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6-8 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchison, IV et al (US 5,790,589) in view of Challa et al (US 6,453,181).

Regarding claim 6, Hutchison discloses a method of detecting path rays in a multi-path channel as stated in paragraph 4. Hutchison discloses a sleep mode used to save power when no receiving data and waking up to receive the expected signal (column 2, lines 32-48). Hutchison uses the same internal clock for both asleep and awake modes (column 2, lines 42-48). Hutchison does not disclose using a high accuracy time reference and a low accuracy time reference in the method.

Challa discloses utilizing a sleep mode to conserve power and waking up the receiver when it is time to receive an incoming signal (abstract). Each sleep period is timed primarily using only a sleep mode clock having a relatively slow frequency, such as a 32 kilohertz clock (column 5, lines 40-42). The transition mode clock has a substantially higher frequency than the sleep mode clock (column 5, lines 42-46). The sleep mode clock is the time reference of low accuracy and the transition mode clock is the time reference of high accuracy. It would have been obvious for one of ordinary skill in the art at the time of the invention to incorporate the two types of time references as taught by Challa into the method of Hutchison. By using the two time references, additional power will be saved since less power is necessary to run the slower clock.

Regarding claims 7 and 8, the calibration step is described in column 5, lines 42-64 of Challa.

Regarding claim 15, Hutchison discloses a method of detecting path rays in a multi-path channel as stated in paragraph 4. Hutchison discloses a sleep mode used to save power when no receiving data and waking up to receive the expected signal (column 2, lines 32-48). Hutchison uses the same internal clock for both asleep and

awake modes (column 2, lines 42-48). Hutchison does not disclose using a high accuracy time reference and a low accuracy time reference in the method.

Challa discloses utilizing a sleep mode to conserve power and waking up the receiver when it is time to receive an incoming signal (abstract). Each sleep period is timed primarily using only a sleep mode clock having a relatively slow frequency, such as a 32 kilohertz clock (column 5, lines 40-42). The transition mode clock has a substantially higher frequency than the sleep mode clock (column 5, lines 42-46). The sleep mode clock is the time reference of low accuracy and the transition mode clock is the time reference of high accuracy. It would have been obvious for one of ordinary skill in the art at the time of the invention to incorporate the two types of time references as taught by Challa into the method of Hutchison. By using the two time references, additional power will be saved since less power is necessary to run the slower clock.

Regarding claims 16 and 17, the calibration step is described in column 5, lines 42-64 or Challa.

Contact Information

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications intended for entry or for informal or draft communications, please label "PROPOSED" or "DRAFT")

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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Burd, whose telephone number is (703) 308-7034. The Examiner can normally be reached on Monday-Thursday from 9:00 AM - 6:00 PM.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3800.



Kevin M. Burd
PATENT EXAMINER
1/25/2004